**Problem Solving Model**

**Understand the Problem**

**Make a Plan**

**Carry Out the Plan**

**Look Back at the Solution**

*(2005, The Ontario Curriculum – Mathematics, Grades 1-8)*

**4.POST-ASSESSMENT TASK.**What will students be able to do that will demonstrate their skills and knowledge at the end of the pathway?

**3. CURRICULUM EXPECTATIONS**

List curriculum expectations related to the area of greatest need. Cluster these expectations to address student needs

**2. GREATEST AREA OF NEED**

What does our evidence of student achievement tell us?

**1. PRE-ASSESSMENT TASK**

What task will we use to gather evidence of what student s currently know and understand about this topic/concept?

**Numeracy TLCP – PBL Process Organizer** Grade: \_\_\_\_\_ Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reflecting and Connecting (After Instruction) Strategies

Reserve our comments for strategic moments

Check for understanding

Prevent or correct any misconceptions

Assess students to plan for next instruction

Independent Activities for consolidation:

Math games journal writing mind map creation homework solving different problems practicing a related skill

Working On It (During Instruction)

Prompts for student engagement & teachers assessment:

How do you know? What evidence can you give?

What connection do you see between…? Is this always true?

Show me another way. Do you see a pattern?

Explain your partner's thinking gin your words.

What do you think would happen if…?

How would a picture, diagram clarify your explanation?

Getting Started (Before Instruction)

* A short, engaging brain teaser
* A quotation, film clip, newspaper article or story to launch the problem
* Establish a scenario & ask students to make predictions
* Brainstorming, placemat, inside/outside circles, think/pair/share, anticipation guide, value line, four corners
* Mental math and have students share strategies/though processes

**Mathematical Processes**

* **Problem-solving**
* **Reflecting**
* **Connecting**
* **Representing**
* **Reasoning & Proving**
* **Communicating**
* **Selecting Tools & Strategies**

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| --- | --- | --- | --- | --- | --- |
| **Problem Based Learning Process Planner** *(Sources: http://pbln.imsa.edu/, http://www4.nau.edu/eeop/aqcp/pbl\_process.asp)* | | | | | |
| LESSON 1 | | | LESSON 2 | | |
| Getting Started | Working On It | Reflecting &Connecting | Getting Started | Working On It | Reflecting &Connecting |
|  |  |  |  |  |  |
| LESSON 3 | | | LESSON 4 | | |
| Getting Started | Working On It | Reflecting &Connecting | Getting Started | Working On It | Reflecting &Connecting |
|  |  |  |  |  |  |

Timeline

Cycle Start Date:

Cycle End Date:

Summative Task Date: